**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Before the Board of Patent Appeals and Interferences**

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| Inventor: | Jurgen Schmidt |
| Application No.: | 10/563,709 |
| Filed: | January 6, 2006 |
| Title: | Method and Apparatus for Decoding a Data Stream In Audio Video Streaming Systems |
| Examiner: | Mohammad N. Rahman |
| Art Unit: | 2161 |

# APPEAL BRIEF

May It Please The Honorable Board:

Appellants initiate a new appeal in accordance with 37 CFR 41.31 in response to the Final Rejection, dated June 26, 2008, of claims 1-12 of the above-identified application. The fee of five hundred forty dollars ($540.00) for filing this Brief pursuant to 37 CFR 41.20(b)(2) is to be charged to Deposit Account No. 07-0832. Enclosed is a single copy of this Brief.

Please charge any additional fee or credit any overpayment to the above-identified Deposit Account.

Appellants do not request an oral hearing.

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## I. REAL PARTY IN INTEREST

The real party in interest of Application Serial No. 10/563,709 is the Assignee of record:

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## II. RELATED APPEALS AND INTERFERENCES

There are currently, and have been, no related Appeals or Interferences regarding Application Serial No. 10/563,709.

## III. STATUS OF THE CLAIMS

Claims 1-12 are rejected and the rejection of claims 1-12 is appealed.

## IV. STATUS OF AMENDMENTS

All amendments were entered and are reflected in the claims included in Appendix I.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 provides a method for decoding a data stream containing a first and second substream (Fig. 1, page 4, lines 1-5). The first substream contains first and second multimedia data packets (Fig. 1, page 4, lines 5-12) and the second substream contains control information where the multimedia data packets contain an indication of the time when to be presented (Fig. 2, page 4, lines 17-22). The multimedia data packets are decoded prior to their indicated presentation time (Page 4, lines 22-24). First, second and third control data is extracted from the control information of the second substream. The first control data is suitable for defining allocation of buffer size (Page 5, lines 4-20). The second control data is suitable for defining one or more second multimedia data packets to be buffered (Page 5, lines 4-20). The third control data is suitable for defining a mode for buffering the second multimedia data packets (Page 5, lines 4-20). Buffer size according to the first control data is allocated in a buffer (Page 5, lines 29-30). The first decoded multimedia data packets are stored in the buffer (Page 5,

lines 14-18). One or more multimedia data packets are stored according to the second control data in the buffer (Page 5, lines 30-34). Depending on the third control data, either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or some or all of the first decoded multimedia data packets in the buffer are replaced (Page 6, lines 1-5).

Dependent claim 2 includes all the features of claim 1, along with a means for the third control data to define one of a plurality of operation modes (Page 6, lines 1-2). In a first mode, buffering of multimedia data packets is performed when the value of the first control data changes (Page 6, lines 7-10). In a second and third mode, the second control data are valid to specify the multimedia data packets to be buffered (Page 6, lines 11-12). In the second mode, the multimedia data packets replace the buffer contents and in the third mode, the multimedia data packets are appended to the buffer contents (Page 6, lines 14-25).

Dependent claim 3 includes all the features of claim 2, along with a means for the third mode to have two variations. In the first variation, the buffering of multimedia data packets stops when the buffer is full (Page 6, lines 27-34). In the second variation, previously buffered data may be overwritten when the buffer is full (Page 7, lines 1-9).

Dependent claim 4 includes all the features of claims 1, along with a means for the method to be utilized in an instance of a processing node and the first control data (Length) defines the allocated buffer size at node creation time (Page 6, lines 27-34).

Dependent claim 5 includes all the features of claims 1, along with the feature where labels are attached to the buffered first and other multimedia data packets, and the packets may be accessed through their respective label (Page 7, lines 1-14).

Dependent claim 6 includes all the features of claims 5, along with the feature where a label attached to the buffered data packets contains an index relative to the latest received data packet (Page 7, lines 16-21).

Dependent claim 7 includes all the features of claim 1, along with the feature where the first substream contains audio data and the second substream contains a description of the presentation (Page 8, lines 10-23).

Independent claim 8 provides an apparatus for decoding a data stream containing a first and second substream (Fig. 1, page 4, lines 1-5). The first substream contains first and second multimedia data packets (Fig. 1, page 4, lines 5-12) and the second substream contains control information where the multimedia data packets contain an indication of the time when to be presented. (Fig. 2, page 4, lines 17-22). The multimedia data packets are decoded prior to their indicated presentation time (Page 4, lines 22-24). The first, second and third control data is extracted from the control information of the second substream. The first control data is suitable for defining allocation of buffer size (Page 5, lines 4-20). The second control data is suitable for defining one or more second multimedia data packets to be buffered (Page 5, lines 4-20). The third control data is suitable for defining a mode for buffering the second multimedia data packets (Page 5, lines 4-20). Buffer size according to the first control data is allocated in a buffer (Page 5, lines 29-30). The first decoded multimedia data packets are stored in the buffer (Page 5, lines 14-18). One or more multimedia data packets are stored according to the second control data in the buffer (Page 5, lines 30-34). Depending on the third control data, either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or some or all of the first decoded multimedia data packets in the buffer are replaced (Page 6, lines 1-5).

Dependent claim 9 includes all the features of claim 8, including the means for attaching labels to the buffered multimedia data packets, and means for accessing, retrieving or deleting the packets through their respective label (Page 7, lines 1-21).

Dependent claim 10 includes all the features of claim 8, along with the feature where the data stream is an MPEG-4 compliant data stream (Page 8, lines 10-24).

Dependent claim 11 includes all the features of claim 1, along with the feature where replacing the stored first decoded multimedia packets with the second multimedia data packets further comprises the step of clearing the buffer before storing the second multimedia data packets (Page 7, lines 1-9).

Dependent claim 12 includes all the features of claims 8, along with a means for the third control data to define one of a plurality of operation modes (Page 6, lines 1-2). In a first mode, buffering of multimedia data packets is performed when the value of the first control data changes (Page 6, lines 7-10). In a second and third mode, the second control data are valid to specify the multimedia data packets to be buffered (Page 6, lines 11-12). In the second mode, the multimedia data packets replace the buffer contents and in the third mode, the multimedia data packets are appended to the buffer contents (Page 6, lines 14-25).

## VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-7 and 11 are rejected under 35 U.S.C. § 102(b) as being anticipated by Fujinami et. al. (U.S. 5,502,573), hereinafter "Fujinami."

Claims 8-10 and 12 are rejected under 35 U.S.C. § 102(e) as being anticipated by Jebb et. al. (U.S. 2005/0120038), hereinafter "Jebb."

## VII. ARGUMENT

### Overview of the Cited References

Fujinami describes and apparatus for reproducing video data from a record medium on which is recorded, in multiplexed form, video data, reference time data representing a reference time, and video time data representing the time at which decoding of the video data reproduced from the record medium should begin. The reference time data is separated from the reproduced multiplexed data and used to generate timing data. The video data and video time data are temporarily stored in a video buffer and a video time data extractor is connected to the output of

the video buffer to extract the video time data from the contents of the video buffer. The video buffer also is connected to a video decoder which decodes the video data temporarily stored in the video buffer, the operation of the video decoder being controlled as a function of a comparison between the generated timing data and the extracted video time data. (see Abstract)

Jebb describes a data structure for storing a data source for a streaming system. The data source includes a plurality of encoded data streams. Each of the plurality of data streams are an independent representation of data from the data source encoded at a different resolution to the other of the plurality of data streams. The data structure consists of a header and a stream data structure for each of the encoded data streams and one or more packets of the encoded data streams. The header is linked to one of the stream data structures. Each stream data structure includes a header, a link to a next stream data structure and a link to a first packet of the encoded data stream. (see Abstract)

**Rejection of claims 1-7, and 11 under 35 U.S.C. 102(b)**

Reversal of the rejection of claims 1-7, and 11 under 35 U.S.C. § 102(b) as being anticipated by Fujinami et. al. (U.S. 5,502,573) is respectfully requested because the rejection makes crucial errors in interpreting the cited reference. The rejection erroneously states that claims 1-7 and 11 are anticipated by Fujinami.

CLAIMS 1 AND 5-7

Independent claim 1 provides a method for decoding a data stream containing a first and second substream. The first substream contains first and second multimedia data packets and the second substream contains control information where the multimedia data packets contain an indication of the time when to be presented. The multimedia data packets are decoded prior to their indicated presentation time. First, second and third control data is extracted from the control information of the second substream. The first control data is suitable for defining allocation of buffer size. The second control data is suitable for defining one or more second multimedia data packets to be buffered. The third control data is suitable for defining a mode for buffering the second multimedia data packets. Buffer size according to the first control data is

allocated in a buffer. The first decoded multimedia data packets are stored in the buffer. One or more multimedia data packets are stored according to the second control data in the buffer. Depending on the third control data, either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or some or all of the first decoded multimedia data packets in the buffer are replaced.

The Office Action asserts that Fujinami describes "a control circuit 28 which may be a central processing unit, coupled to data separator 21 to supply various control command signals thereto" (col. 3, lines 12-14). Applicant respectfully disagrees. The control circuit (ref. 28) of Fujinami is not coupled to the video buffer (ref. 6). Instead, the control circuit is coupled to a ring buffer (Fig. 6). Fujinami describes at least two different kinds of buffers; the ring buffer (ref. 4) and the decoder-related buffers for video and audio (Fig. 6, reference nos. 6, 8). The purpose of the ring buffer is to provide a buffering action to the operation of the ECC circuit, thus supplying a substantially steady stream of data to the demultiplexer (col. 2, lines 28-35). The ring buffer is situated before the demultiplexer. Mention of the ECC circuit and the ring buffer is due to the assumption that the multiplexed data is recorded on an optical disc (col. 2, lines 28-35). Even if the ring buffer of Fujinami contains control information, it is distinguishable from the video or audio buffer, or a control command. As a result, it cannot be concluded that "the buffer" contains the control information, as asserted by the Office Action, because it is not the same buffer. Thus, Fujinami neither discloses nor suggests "the first substream containing first and second multimedia data packets and the second substream containing control information" as recited in claim 1 of the present arrangement.

Furthermore, in Fujinami, the second control circuit 28 is coupled to the data separator 21 in such a way that it supplies control commands to the data separator. Control data flows from the control circuit 28 to the data separator 21 as evidenced by the statement "to supply various control command signals" (Fig. 6, col. 3, lines 12-14). Control circuit 28 "responds to operator-generated input signals produced by an input section 29 for controlling the overall operation of the data reproducing apparatus" (col. 3, lines 14-17). In addition, Fig. 4A of Fujinami shows that "input section 21 is coupled only to control circuit 28A which, in turn, supplies corresponding command instructions to disk drive 1, data separator 21A and clock register 26A" (col. 13, lines

55-58). Also, in Fujinami, the "control circuit 28A receives a status indication from ECC circuit 3 which is indicative of an error condition that cannot be corrected" (col. 13, lines 58-61). This indication is different from "the first substream containing first and second multimedia data packets and the second substream containing control information" as recited in claim 1 of the present arrangement for at least two reasons.

Firstly, the indication described in Fujinami is a single indication, and not first, second, and third control data as in the present claimed arrangement. Secondly, the indication in Fujinami is also not "the second substream" as asserted by the Office Action, but instead is internally generated from an error correction (ECC) unit. This indication is wholly unlike the present claimed arrangement because the indication is meant to indicate an error condition that cannot be corrected. This means that no corresponding data is buffed in the ring buffer. As a result, buffering may be switched on or off. However, different buffering modes, such as appending and replacing of data, are not shown in Fujinami. In addition, the control indication which the control block receives comes from ECC block 3, not from a buffer. Therefore, neither the ring buffer nor the video buffer of Fujinami can be the buffer that contains control information which is then processed by the control circuit, as asserted by the Office Action. Thus, Fujinami does not disclose or suggest "the first substream containing first and second multimedia data packets and the second substream containing control information" as recited in claim 1 of the present arrangement.

The Office Action further asserts that Fujinami describes "first control data are suitable for defining the allocated buffer size to be allocated" as recited in claim 1 of the present arrangement. The Office Action also contends that a cited passage of Fujinami states that "the error corrected digital data then is supplied to ring buffer 4 which stores such data until a predetermined amount is accumulated" (col. 2, lines 28-32). Applicant respectfully disagrees. The ring buffer of Fujinami is not the same "buffer" as referred to in the present claimed arrangement. In addition, Fujinami does not even show control data for allocating buffer size. Furthermore, the term "allocating," in the context of memories and particularly in the context of MPEG-4 related buffer nodes, is conventionally referred to as reserving the buffer space at runtime for subsequent usage. The control data of the present claimed arrangement is suitable

for dynamically defining how much buffer size should be allocated, thus defining buffer space in which the decoded multimedia data packets will be stored in a later step.

In contrast, Fujinami merely describes a control indication that is suitable for indicating defect data blocks to be re-read (col. 13, line 58 – col. 14, line 9). The indication is transformed into a re-read command, where the defect data are re-read again from the disc. Furthermore, the re-read command cannot be interpreted to imply replacing of buffered data, since defect data blocks are not buffered, and will therefore not be replaced. Therefore, Fujinami does not show "allocating buffer size," control data suitable for allocating buffer size, or even dynamically allocating buffer size. Thus, Fujinami neither discloses nor suggests "first control data suitable for defining the allocated buffer size to be allocated" as recited in claim 1 of the present arrangement.

The Office Action asserts that Fujinami also describes that "the second control data are suitable for defining one or more second multimedia data packets to be buffered" as recited in claim 1 of the present arrangement. Applicant respectfully disagrees. While in the cited passage of Fujinami at col. 12, lines 49-54 may show control data suitable for defining one or more multimedia data packets to be buffered, the control data is not extracted from the data system as is the case in the present arrangement. Instead, the control data is generated by a separate process performed in the synchronization control circuit (ref. 21), which is distinguishable from the control circuit (ref. 28) that was mentioned previously. In addition, the term "buffer" (col. 12, line 52) refers to the video buffer (Ref. 6A) and not the same buffer as the present claimed arrangement. Thus, Fujinami neither discloses nor suggests that "the second control data are suitable for defining one or more second multimedia data packets to be buffered" as recited in claim 1 of the present arrangement.

The Office Action further asserts that Fujinami discloses that "the third control data are suitable for defining a mode for buffering the second multimedia data packets" as recited in claim 1 of the present arrangement. Applicant respectfully disagrees with this assertion as well. The cited portion of Fujinami and elsewhere, merely refers to multimedia data packets that are read from the disc and buffered in the ring buffer (col. 1, lines 28-35). "A packet is comprised of

a pack header followed by a video packet and an audio packet" (col. 1, line 29). Although video and audio packets are similarly structured (col. 1, lines 46-51), neither the "PACKET START CODE" nor the "VIDEO PACKET START CODE" that the video pack header consists of can be characterized as "suitable for defining a mode for buffering the second multimedia data packets" as recited in claim 1 of the present arrangement. The present claimed arrangement describes different modes and subsequent features not described by Fujinami.

Fujinami describes a system time clock reference SCR which indicates the time at which the packet was recorded (col. 1, lines 33-34). However, this is not the same as "a mode for buffering" as recited in claim 1 of the present arrangement. In addition, Fujinami makes no mention or suggestion of "start load time", because "start load time" is not the time at which the packet was recorded. Similarly, Fujinami also does not mention or suggest "stop load time." As a result, the "control data" of Fujinami is completely different from the "control data" of the present claimed arrangement. Thus, Fujinami neither discloses nor suggests that "the third control data are suitable for defining a mode for buffering the second multimedia data packets" as recited in claim 1 of the present arrangement.

The Office Action asserts that Fujinami discloses "allocating, in a buffer, buffer size according to the first control data (Length)" as recited in claim 1 of the present arrangement. Fujinami does not show control data for allocating buffer size. In particular, Fujinami does not describe the allocating of buffer size according to extracted first control data. The section of Fujinami (col. 2, lines 28-32) cited to by the Office Action refers to only the ring-buffer, which, as discussed above, is not the same as the "buffer" of the present claimed arrangement. Thus, Fujinami neither discloses nor suggests "allocating, in a buffer, buffer size according to the first control data (Length)" as recited in claim 1 of the present arrangement.

The Office Action also asserts that Fujinami discloses "storing the first decoded multimedia data packets in the buffer" as recited in claim 1 of the present arrangement. While Fujinami may describe "storing multimedia data packets in a buffer, "the buffer" as described in col.2, lines 28-32 refers to the ring buffer (ref. 4), in which no buffer space is allocated. Furthermore, since the ring buffer is situated before the decoder, there cannot be any decoded

multimedia data packets in this specific portion of Fujinami's system. A predetermined buffer size as described by Fujinami is not the same as "allocating buffer size according to the first control data" as recited in claim 1 of the present arrangement. A predetermined buffer size is obtained from a diametrically different technological approach. "Predetermined" implies that the buffer size is given and constant. In contrast, "allocating buffer size according to the first control data" as recited in claim 1 of the present arrangement is a dynamic process because the amount of buffer space to be used can be varied and therefore optimized. Therefore, Fujinami neither discloses nor suggest "storing the first decoded multimedia data packets in the buffer" as recited in claim 1 of the present arrangement.

The Office Action further asserts that Fujinami discloses "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 1 of the present arrangement. Applicant respectfully disagrees. The Office Action incorrectly refers to the abstract of Fujinami, as well as col. 2, lines 38-42, col. 13, lines 28-41 and col. 5, lines 7-13 as describing the above feature of claim 1 of the present arrangement. The buffer referred to in the abstract of Fujinami is actually the video buffer (abstract, lines 9-13, ref. 6). The video buffer is located after the data separator and decoder. Additionally col. 2, lines 28-32 of Fujinami refer to the ring buffer (ref. 4). The presentation time stamp (PTS) (col. 13, lines 28-41) also merely refers to either the video signal or the audio signal, which in turn means it is evaluated after the data separator and the decoding.

In addition, the Office Action asserts that Fujinami, in col. 15 lines 4-14 discloses that "the video decoder 7 waits for a control signal from the synchronization control circuit 31, thereby delaying the decoding of video data supplied from the video buffer 6A, and the decoder 7 while waiting repeatedly outputs the previous picture P12." It may be interpreted that video decoder 7 consists of a further, unmentioned buffer not shown in the figures, which stores the previous picture P12 for repeated output. Although Fujinami describes that multimedia data packets are stored in a buffer, it is different than the previously mentioned buffer. In addition,

previous picture P12 must be stored in this buffer within the decoder, independent from the control data because at the time of generation, the decoder will not have any indication whether or not the next picture will be delivered form the video buffer or if a pause operation will follow, which would lead to previous picture P12 being output repeatedly. Furthermore, the synchronization control circuit 31 that controls video decoder 7 is distinguishable from the previously mentioned control circuit 28. Therefore, Fujinami neither discloses nor suggests "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 1 of the present arrangement.

Therefore as Fujinami fails to show or suggest each feature in claim 1, Fujinami does not anticipate the present claimed invention. Consequently, it is respectfully requested that the rejection of claim 1 under 35 U.S.C. 102(b) be withdrawn.

Claims 5-7 are dependent on claim 1 and are considered patentable for the reasons discussed above with respect to claim 1. Consequently, it is respectfully requested that the rejection of claims 5-7 under 35 U.S.C. 102(b) be withdrawn.

CLAIM 2

Claim 2 is dependent on claim 1 and is considered patentable for the reasons discussed above with respect to claim 1. Claim 2 is further considered patentable as Fujinami neither discloses nor suggests "a plurality of operation modes, wherein in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents" as recited in claim 2 of the present arrangement. The Office Action asserts that Fujinami describes a video packet start code, a video decoding time stamp being compared with a system clock reference, and thereby the decoders being supplied with a start signal that coincides with the beginning of the video and audio data (col. 1, lines 46-67 and col. 2, lines 2-1). However, Fujinami makes no mention or

suggestion of "a plurality of operation modes" as described in claim 2 of the present claimed arrangement. Therefore, Fujinami neither discloses nor suggests "a plurality of operation modes, wherein in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents" as recited in claim 2 of the present arrangement.

Therefore as Fujinami fails to show or suggest each feature in claim 2, Fujinami does not anticipate the present claimed invention. Consequently, it is respectfully requested that the rejection of claim 2 under 35 U.S.C. 102(b) be withdrawn.

CLAIM 3

Claim 3 is dependent on claim 1 and is considered patentable for the reasons discussed above with respect to claim 1. Claim 3 is further considered patentable as Fujinami neither discloses nor suggests "in the first variation the buffering of multimedia data packets stops when the buffer is full, and in the second variation previously buffered data may be overwritten when the buffer is full" as recited in claim 3 of the present arrangement. The Office Action asserts that Fujinami describes, in col. 3, lines 33-53, "the continuous filing and discontinuous reading of the video buffer 6, which may be understood as a conventional mode in which the buffering of multimedia data packets stops when the buffer is full." However, this is different from a variation of the mode where previously buffered data may be overwritten when the buffer is full, as described in the present arrangement. Therefore, Fujinami neither discloses nor suggests "in the first variation the buffering of multimedia data packets stops when the buffer is full, and in the second variation previously buffered data may be overwritten when the buffer is full" as recited in claim 3 of the present arrangement.

Therefore as Fujinami fails to show or suggest each feature in claim 3, Fujinami does not anticipate the present claimed invention. Consequently, it is respectfully requested that the rejection of claim 3 under 35 U.S.C. 102(b) be withdrawn.

CLAIM 4

Claim 4 is dependent on claim 1 and is considered patentable for the reasons discussed above with respect to claim 1. Claim 4 is further considered patentable as Fujinami neither discloses nor suggests "the method is utilized in an instance of a processing node and wherein the first control data defines the allocated buffer size at node creation time" as recited in claim 4 of the present arrangement. The Office Action asserts that Fujinami describes "the method is utilized in an instance of a processing node and wherein the first control data defines the allocated buffer size at node creation time" as recited in claim 4 of the present arrangement. However, in the section cited by the Office Action and elsewhere, Fujinami merely explains the differences between Fujinami and the relative prior art. In particular, the difference between the demultiplexer, data separator and the storage of audio data and audio decoding time stamp data in the audio buffer is discussed. This is not the same as describing an instance of a processing node, in the context of MPEG-4, where first control data defines the allocated buffer size at node creation time as in the present claimed arrangement. As discussed earlier, defining allocated buffer size at node creation time is commonly understood as dynamic allocation of memory space. Fujinami neither discloses nor suggests this feature. Therefore, Fujinami neither discloses nor suggests "the method is utilized in an instance of a processing node and wherein the first control data defines the allocated buffer size at node creation time" as recited in claim 4 of the present arrangement.

Therefore as Fujinami fails to show or suggest each feature in claim 4, Fujinami does not anticipate the present claimed invention. Consequently, it is respectfully requested that the rejection of claim 4 under 35 U.S.C. 102(b) be withdrawn.

CLAIM 11

Claim 11 is dependent on claim 1 and is considered patentable for the reasons discussed above with respect to claim 1. Claim 11 is also considered patentable as Fujinami neither discloses nor suggests "means for attaching labels to the buffered multimedia data packets, and means for accessing, retrieving or deleting the packets through their respective label" as recited in claim 11 of the present arrangement. The Office Action asserts that Fujinami describes "means for attaching labels to the buffered multimedia data packets, and means for accessing,

retrieving or deleting the packets through their respective label" as recited in claim 11 of the present arrangement. Applicant respectfully disagrees. Fujinami merely describes that video data and video time data are stored in the video buffer. The video time data is extracted from the buffer and compared with generated time data. The signal resulting from the comparison is used to control the video decoder. However, Fujinami neither discloses nor suggests the replacement of stored first decoded multimedia packets and second multimedia data. Fujinami describes data that may be buffered and extracted, but not replaced by other data. Furthermore, Fujinami's buffer is not cleared, as can be in the present claimed arrangement. Therefore, Fujinami neither discloses nor suggests "means for attaching labels to the buffered multimedia data packets, and means for accessing, retrieving or deleting the packets through their respective label" as recited in claim 11 of the present arrangement.

Therefore as Fujinami fails to show or suggest each feature in claim 11, Fujinami does not anticipate the present claimed invention. Consequently, it is respectfully requested that the rejection of claim 11 under 35 U.S.C. 102(b) be withdrawn.

**Rejection of claims 8-10, and 12 under 35 U.S.C. 102(e)**

Reversal of the rejection of claims 8-10 and 12 under 35 U.S.C. § 102(e) as being anticipated by Jebb et. al. (U.S. application 2005/0120038) is respectfully requested because the rejection makes crucial errors in interpreting the cited reference. The rejection erroneously states that claims 8-10 and 12 are anticipated by Jebb.

CLAIMS 8, 9, AND 10

Independent claim 8 provides an apparatus for decoding a data stream. The data stream contains a first and a second substream. The first substream contains first and second multimedia data packets. The second substream contains control information. The multimedia data packets contain an indication of the time when to be presented and are decoded prior to their indicated presentation time. The first and second multimedia data packets are buffered. Control information of the first, second and third control data are extracted from the second substream. The first control data is suitable for defining the buffer size to be allocated. The second control data is suitable for defining one or more second multimedia data packets to be buffered. The

third control data is suitable for defining a mode for buffering the second multimedia data packets. In a buffer, buffer size is allocated according to the first control data. The first decoded multimedia data packets are stored in the buffer. One or more multimedia data packets may be stored according to the second control data in the buffer. Depending on the third control data, either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer or some or all of the first decoded multimedia data packets in the buffer are replaced.

The Office Action contends that Jebb discloses "means for extracting from said control information of the second substream first, second, and third control data" as recited in claim 8 of the present arrangement. Applicant respectfully disagrees. Jebb describes a data streaming system consisting of a server, a client, and a particular data structure. In paragraph [0017] cited in the Office Action, Jebb merely refers to the server side. The header types referred to are not the control data as claimed in the present arrangement. Therefore, Jebb neither discloses nor suggests "means for extracting from said control information of the second substream first, second, and third control data" as recited in claim 8 of the present arrangement.

The Office Action further asserts that Jebb describes "wherein the first control data are suitable for defining buffer size to be allocated" as recited in claim 8 of the present arrangement. However, Jebb makes no mention or suggestion of control data. In addition, Jebb does not describe buffer allocation within the meaning of the term "allocating" which has been described in the above arguments regarding claim 1. Buffering space is available in Jebb, but the buffer is not allocated. "Allocating" a buffer conventionally means "reserving" buffer space for later buffering. Thus, Jebb neither discloses nor suggests "wherein the first control data are suitable for defining buffer size to be allocated" as recited in claim 8 of the present arrangement.

The Office Action contends that Jebb discloses "the second control data are suitable for defining one or more second multimedia data to be buffered" as recited in claim 8 of the present arrangement. Applicant respectfully disagrees. The "intra" indication in intra-coded pictures cannot serve as the control data of the present claimed arrangement because not every intra picture is buffered. Furthermore, it is possible that intra-coded pictures may also appear in other

streams (see Jebb, paragraph [0057]). Paragraph [0057] of Jebb also only refers to the server, and not to the client. As a result, Jebb does not describe or suggest an apparatus for decoding which is required for the present arrangement. Therefore, Jebb neither discloses nor suggests "the second control data are suitable for defining one or more second multimedia data to be buffered" as recited in claim 8 of the present arrangement.

The Office Action in addition asserts that Jebb discloses that "the third control data are suitable for defining a mode for buffering the second multimedia data packets" as recited in claim 8 of the present arrangement. Applicant respectfully disagrees. Jebb does not disclose or suggest this feature because there are no different buffering modes at the client side, in contrast to the present claimed arrangement where the client side buffers all streaming data that is received. Jebb merely describes that the server or encoding side, monitors its own network buffer (ref. 120) and implicitly knows which data has been received by the client (see paragraph [0100]). This is not the same as control data that is suitable for defining a mode for buffering multimedia data packets as recited in the present claimed arrangement. Therefore, Jebb neither discloses nor suggests that "the third control data are suitable for defining a mode for buffering the second multimedia data packets" as recited in claim 8 of the present arrangement.

The Office Action also asserts that Jebb discloses "means for allocating, in the buffer, buffer size according to the first control data" as recited in claim 8 of the present arrangement. However, this argument has been addressed in the above arguments regarding Jebb not describing the allocation of buffer size. Therefore, as discussed above Jebb neither discloses nor suggests "means for allocating, in the buffer, buffer size according to the first control data" as recited in claim 8 of the present arrangement.

The Office Action further asserts that Jebb discloses "means for storing the first decoded multimedia data packets in the buffer" as recited in claim 8 of the present arrangement. However, the cited paragraph [0085] of Jebb refers to the server side and not an apparatus for decoding as in the present claimed arrangement. In addition, the multimedia data of Jebb are "appended for streaming" (paragraph [0085]). Furthermore, data is appended to a file in order to prevent them from being overwritten in the circular buffer, which refers to the server side

(paragraph [0113]). Therefore, Jebb neither discloses nor suggests "means for storing the first decoded multimedia data packets in the buffer" as recited in claim 8 of the present arrangement.

Therefore as Jebb fails to show or suggest each feature in claim 8, Jebb does not anticipate the present claimed invention. Consequently, it is respectfully requested that the rejection of claim 8 under 35 U.S.C. 102(b) be withdrawn.

Claims 9 and 10 are dependent on claim 8 and are considered patentable for the reasons discussed above with respect to claim 8. Consequently, it is respectfully requested that the rejection of claims 9 and 10 under 35 U.S.C. 102(b) be withdrawn.

CLAIM 12

Claim 12 is dependent on claim 8 and is considered patentable for the reasons discussed above with respect to claim 8. Claim 12 is also considered patentable as contrary to the assertion in the Office Action, Jebb neither discloses nor suggests "a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents" as recited in claim 12 of the present arrangement. Cited paragraph [0013] of Jebb which recites that "the pointers to . . . the last packet are useful when appending to a file" describes appending of packet data to a file on the server side. This is not the same as multimedia data packets to be appended or replaced in a buffer within an apparatus for decoding as described in the present claimed arrangement. Jebb merely describes a system where the file data will be later sent to the client. Jebb makes no mention or suggestion of file data being appended to buffered data or replacing buffered data. "[D]ata are read from the file rather than from the circular buffers" (paragraph [0089]). Once the streaming data is read from a file, they are not read from the circular buffers. Although the data may subsequently pass through the network buffer (ref. 120), the network buffer must still be distinguished from the circular buffers, of which Jebb makes no mention. Furthermore, Jebb does not disclose or suggest first, second and third control data that refers to allocating a buffering size, or defining multimedia packets to be buffered or defining a buffering

mode in the network buffer. Therefore, Jebb neither discloses nor suggests "a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents" as recited in claim 12 of the present arrangement.

Therefore as Jebb fails to show or suggest each feature in claim 12, Jebb does not anticipate the present claimed invention. Consequently, it is respectfully requested that the rejection of claim 12 under 35 U.S.C. 102(b) be withdrawn.

## VIII CONCLUSION

Fujinami does not disclose or suggest a "method for decoding a data stream, containing a first and a second substream, the first substream containing first and second multimedia data packets and the second substream containing control information, wherein the multimedia data packets contain an indication of the time when to be presented and are decoded prior to their indicated presentation time, the method comprising the steps of: extracting from said control information of the second substream first, second and third control data wherein the first control data are suitable for defining buffer size to be allocated, the second control data are suitable for defining one or more second multimedia data packets to be buffered, and the third control data are suitable for defining a mode for buffering the second multimedia data packets; allocating, in a buffer, buffer size according to the first control data (Length); storing the first decoded multimedia data packets in the buffer; and storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 1 of the present arrangement. As claims 2-7 and 11 are dependent on claim 1, these claims are allowable over Fujinami.

Jebb does not disclose or suggest an "apparatus for decoding a data stream, the data stream containing a first and a second substream, the first substream containing first and second

multimedia data packets and the second substream containing control information, wherein the multimedia data packets contain an indication of the time when to be presented and are decoded prior to their indicated presentation time, and wherein the first and second multimedia data packets are buffered, comprising buffering means for said buffering of the first and the second multimedia data packets; means for extracting from said control information of the second substream first, second and third control data, wherein the first control data are suitable for defining buffer size to be allocated, the second control data are suitable for defining one or more second multimedia data packets to be buffered, and the third control data are suitable for defining a mode for buffering the second a multimedia data packets; means for allocating, in the buffer, buffer size according to the first control data; means for storing the first decoded multimedia data packets in the buffer; and means for storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 8 of the present claimed arrangement. As claims 9, 10, and 12 are dependent on claim 8, these claims are also allowable over Jebb.

Accordingly it is respectfully submitted that the rejection of claims 1-12 should be reversed.

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## APPENDIX I - APPEALED CLAIMS

1.(Previously Presented) Method for decoding a data stream, containing a first and a second substream, the first substream containing first and second multimedia data packets and the second substream containing control information, wherein the multimedia data packets contain an indication of the time when to be presented and are decoded prior to their indicated presentation time, the method comprising the steps of:

extracting from said control information of the second substream first, second and third control data wherein

the first control data are suitable for defining buffer size to be allocated,

the second control data are suitable for defining one or more second multimedia data packets to be buffered, and

the third control data are suitable for defining a mode for buffering the second multimedia data packets;

allocating, in a buffer, buffer size according to the first control data (Length);

storing the first decoded multimedia data packets in the buffer; and

storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer.

2. (Previously Presented) Method according to claim 1, wherein the third control data defines one of a plurality of operation modes, wherein in a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents.

3. (Original) Method according to claim 2, wherein the third mode has two variations, wherein in the first variation the buffering of multimedia data packets stops when the buffer is full, and in the second variation previously buffered data may be overwritten when the buffer is

full.

4. (Previously Presented) Method according to claim 1, wherein the method is utilized in an instance of a processing node and wherein the first control data defines the allocated buffer size at node creation time.

5. (Previously Presented) Method according to claim 1, wherein labels are attached to the buffered first and other multimedia data packets, and the packets may be accessed through their respective label.

6. (Previously Presented) Method according to the claim 5, wherein a label attached to the buffered data packets contains an index relative to the latest received data packet.

7. (Previously Presented) Method according to claim 1, wherein the first substream contains audio data and the second substream contains a description of the presentation.

8. (Previously Presented) Apparatus for decoding a data stream, the data stream containing a first and a second substream, the first substream containing first and second multimedia data packets and the second substream containing control information, wherein the multimedia data packets contain an indication of the time when to be presented and are decoded prior to their indicated presentation time, and wherein the first and second multimedia data packets are buffered, comprising

buffering means for said buffering of the first and the second multimedia data packets;

means for extracting from said control information of the second substream first, second and third control data, wherein the first control data are suitable for defining buffer size to be allocated,

the second control data are suitable for defining one or more second multimedia data packets to be buffered, and

the third control data are suitable for defining a mode for buffering the second a multimedia data packets;

means for allocating, in the buffer, buffer size according to the first control data;

means for storing the first decoded multimedia data packets in the buffer; and

means for storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer.

9. (Original) Apparatus according to claim 8, further comprising means for attaching labels to the buffered multimedia data packets, and means for accessing, retrieving or deleting the packets through their respective label.

10. (Previously Presented) Apparatus according to claim 8, wherein the data stream is an MPEG-4 compliant data stream.

11. (Previously Presented) Method according to claim 1, wherein replacing the stored first decoded multimedia packets with the second multimedia data packets further comprises the step of clearing the buffer before storing the second multimedia data packets.

12. (Previously Presented) Apparatus according to claim 8, wherein the third control data defines one of a plurality of operation modes, wherein in a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents.

## APPENDIX II - EVIDENCE

Applicant does not rely on any additional evidence other than the arguments submitted hereinabove.

## APPENDIX III - RELATED PROCEEDINGS

Applicant respectfully submits that there are no proceedings related to this appeal in which any decisions were rendered.

## APPENDIX IV - TABLE OF CASES

## APPENDIX V - LIST OF REFERENCES

| U.S. Pub. No. | Pub. Date | 102(e) Date | Inventors |
|---|---|---|---|
| 5,502,573 | Mar. 26, 1996 | | Fujinami et al |
| 2005/0120038 A1 | Jun. 2, 2005 | | Jebb et al |

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